

### **Abstract**

Disclosed is a method and apparatus for employing, in a lateral flow assay, multiple control lines to assist in improving the sensitivity of such an assay. Analytes of interest may be quantified in a lateral flow assay by conducting internally derived calibrations by quantifying the analyte and calibrating the assay device, at essentially the same time, on the same device. That is, calibration and sample testing may occur simultaneously, improving sensitivity, and reducing errors that otherwise may be introduced by comparing data produced in one assay with data or reference data produced in a different assay. A multi-point calibration technique may be employed. Visual spectrophotographic reading devices may be employed to compare intensity of signals generated by probes attached to the analyte with probes associated with control lines upon a calibration zone.